

Date: Tue, 21 Jun 94 04:30:31 PDT  
From: Ham-Equip Mailing List and Newsgroup <ham-equip@ucsd.edu>  
Errors-To: Ham-Equip-Errors@UCSD.Edu  
Reply-To: Ham-Equip@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Equip Digest V94 #197  
To: Ham-Equip

Ham-Equip Digest                      Tue, 21 Jun 94                      Volume 94 : Issue    197

Today's Topics:

                    Broken ts-530  
                    HELP! Icom 28H

Send Replies or notes for publication to: <Ham-Equip@UCSD.Edu>  
Send subscription requests to: <Ham-Equip-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Equip Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-equip".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

-----  
Date: 21 Jun 1994 04:27:59 GMT  
From: ihnp4.ucsd.edu!sdd.hp.com!spool.mu.edu!uwm.edu!alpha2.csd.uwm.edu!  
pachner@network.ucsd.edu  
Subject: Broken ts-530  
To: ham-equip@ucsd.edu

At the radio club at school, we have a ts-530 (i think it is at least. it  
has tube finals with digital vfo). It recieves fine but won't transmit with  
mike, code key, tuning mode, or manually closing the contacts. Has anyone else had  
this  
problem?

thanks  
tom

--  
Thomas Jay Pachner ==- Music Major (at least this week I am)  
University of Wisconsin - Milwaukee  
pachner@alpha2.csd.uwm.edu    - please note new email address  
Amateur Radio Call Sign: N9UUJ

-----

Date: Tue, 21 Jun 1994 03:18:53 GMT  
From: netcomsv!netcom.com!fmitch@decwrl.dec.com  
Subject: HELP! Icom 28H  
To: ham-equip@ucsd.edu

hi, mitch, wa4osr here in mobile, alabama...

i have a dead icom 28h... i don't have the manual or schematic...  
i would greatly appreciate a copy of the manual, with schematic if  
possible, and a service manual would be fabulous... i will be glad  
to pay for copying and postage...

thanks,  
mitch  
wa4osr

\* \* \* I collect telegraph equipment (mostly bugs - Vibroplex) \* \* \*

-----  
Email: fmitchell@rd.qms.com or, second choice, fmitch@netcom.com  
Felton "Mitch" Mitchell, WA4OSR, 11 Midtwon Park, E., Mobile, AL 36606 USA  
205-342-7259 home, 205-476-4100 work, 205-476-0465 FAX  
co-sysop for W4IAX bbs running fbb ... sysop for WA4OSR DXCluster in Mobile..  
-----

--

\* \* \* I collect telegraph equipment (mostly bugs - Vibroplex) \* \* \*

-----  
Email: fmitchell@rd.qms.com or, second choice, fmitch@netcom.com  
Felton "Mitch" Mitchell, WA4OSR, 11 Midtwon Park, E., Mobile, AL 36606 USA  
205-342-7259 home, 205-476-4100 work, 205-476-0465 FAX  
co-sysop for W4IAX bbs running fbb ... sysop for WA4OSR DXCluster in Mobile..  
-----

-----  
Date: 21 Jun 94 06:07:33 GMT  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!vixen.cso.uiuc.edu!  
newsrelay.iastate.edu!news.iastate.edu!tremple.gis.iastate.edu!  
willmore@network.ucsd.edu  
To: ham-equip@ucsd.edu

References <2u2h6l\$1m0@search01.news.aol.com>, <CrovAy.Mo3@lila.com>,  
<2u4v8o\$41e@agate.berkeley.edu>emplo.g  
Subject : Re: (Rechargable) Alkalines vs NiCads?

kennish@kabuki.EECS.Berkeley.EDU (Ken A. Nishimura) writes:  
>Bill Dorsey <dorsey@lila.com> wrote:  
>>Why is 10-year-old battery technology still being used in state-of-the

>>art HTs?

>It's cheap! Ni-Cds can be bought in quantity for 50 cents per cell.  
>Can't come close to that with anything else. Ni-Cds have  
>been around for 100 years.

It's not only cheap, but they are fairly rugged--electronically. Every fool and their friend can whip up a NiCd charger out of a pair of transistors and a few resistors which will safely charge NiCd's.

>NiMH cells are expensive, and they are harder to quick charge. They  
>also have a horrible shelf charge retention, which makes them trickier  
>to use on an occasional basis -- a definite advantage of Renewals.  
>Also, the newer NiCds are catching up -- 950 mAh is on its way, which  
>is only 25% less than NiMH, for less than 1/2 the cost.

I can't agree more. Early generation NiMH batteries have horrid shelf properties. Admittedly, most ham's using NiCd's are already used to plugging in the radio at night anyway. I picked up some 850mAh NiCd's at a ham fest for \$2.00(US)/each and I didn't look too hard. 600mAh cells could be had for half that.

>Lithium ion is even harder to charge -- you need a temperature compensated  
>constant voltage charge accurate to within 0.5% to maximize cell life.  
>Also, I don't know how the high current discharge characteristics of those  
>cells rate. Remember, HT use is very demanding requiring over 1A discharges  
>if you're on high power -- a weak point of Renewals.

Exactly, discharge characteristics are very important to HT users. The problem is, it is hard to make a blanket decision as performance depends heavily on usage characteristics. If you have a scanner or a nontransmitting HT drawing in the 100mA to 20mA range (typical), alkaline (including Renewal) will perform better than NiCd by a factor of 2x to 3x. If you transmit on that same HT, you will quickly change this balance in favor of NiCds.

For example, an E91 (energizer AA) vs a (forgot the exact part) 500 mAh NiCd, the tradeoff is at around 150 mA of constant drain. The curve is in favor of the E91 by a factor of 2x to 3x on the low current side and in favor of the NiCd by 3x to 5x in the 1A to 1.5A range. (email me for references if you would like to see them) Keep in mind that this is for a .5A/h NiCd.

>It would be interesting to see when the HT manufacturers offer a NiMH  
>pack, and how much they would charge for it.

(sarcastically) Considering the price they charge for NiCd's, I don't want to know...

>>I've been using AA NiMH batteries in the AA-battery pack for my HT

>>for a while now, and have experienced superior performance to regular  
>>nickel cadmium batteries without the worry of memory-effect. Now if  
>>only I didn't have to take the thing apart every time I want to charge  
>>them. I found these at a local battery-specialty store in case anyone's  
>>interested.

>I'm glad it's working for you. I have tried some 1200 mAh  
>NiMH cells and they do have the extra capacity, and I use them when  
>that is the overriding criteria. But I usually stick with the cheapo  
>NiCds since they cost almost nothing to replace when they finally poop  
>out. I charge them while in the pack. Used two paper clips and some  
>copper foil plus solder and made a jig so that I can place the  
>pack on the clips and make contact. Add a delta V charger ckt and  
>you're home free.

For a charge-every-night HT user, NiMH will win out if that much capacity  
is necessary vs the price differential. Keep in mind that charging circuitry  
will be more expensive/complex for the NiMH cells.

Since I seem to be the self appointed advocate of 1.5V AA Lithiums, here's  
my two cents WRT them:

These cells combine the best of both worlds. (alkaline and Ni-whatever)  
They have a low internal resistance like NiCds. They have high capacity  
like alkalines. They have the discharge characteristics of NiCds. Best  
of all, they have great low and high temperature performance--better than  
both alkaline and Ni-whatever. Finally, they're really light.

Cons: they cost about \$6.00(US) for two! (they did just go into volume  
production and have, as yet, to catch on) They are primary cells--i.e.  
they can't be recharged.

Just thought I'd mention them as they are bound to decrease in price in  
the coming years--especially if hams grow an affinity for them. (hint hint)

Cheers,  
David  
--

-----  
willmore@iastate.edu | "Death before dishonor" | "Better dead than greek" |  
David Willmore | "Ever noticed how much they look like orchids? Lovely!" |  
-----

-----  
End of Ham-Equip Digest V94 #197  
\*\*\*\*\*